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Flying Operations

***KC-10A OPERATIONS - LOCAL OPERATING
GUIDELINES***

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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SUMMARY OF REVISIONS

This volume is re-written in it's entirety to update all 60 AMW and 349 AMW local operating guidelines.

1.	60th Air Mobility Wing (AMW) and 349th AMW Local Operating Guidelines:	3
2.	Mission Planning:	3
3.	Transition Training:	5
4.	Local Pattern Procedures:	6
5.	Crew Communications Procedures:	8
Table 1.	Crew Communications Kits	10
6.	Formation Guidelines:	11
7.	Non-Engine Running Crew Change (NERCC) Missions:	12
8.	Aircrew Arming/Security:	13
9.	Unauthorized Equipment.	14
10.	Inflight Fuel Jettisoning:	14
11.	Aircraft Documentation and Forms Requirements:	14
12.	Fuel Conservation Program.	15
13.	Concurrent Servicing:	16

14.	Cargo Boom Operator Procedures:	17
15.	Travis Bird Aircraft Strike Hazard (BASH) Plan:	18
16.	Functional Check Flights.	20

1. 60th Air Mobility Wing (AMW) and 349th AMW Local Operating Guidelines:

1.1. This volume applies to all assigned and attached Travis AFB aircrews who participate in KC-10A flight operations. The 60th Operations Group Commander (60 OG/CC) is the waiver authority for this volume. Submit changes to this volume via AF Form 847 to the 60th Operations Group Standardization/Evaluation Division (60 OG/OGV).

2. Mission Planning:

2.1. All units will publish mission planning procedures in Flight Crew Information File, Part C.

2.2. Runway Slope Calculations Using Jeppesen Airfield Diagrams. When using non-DoD/NOAA airfield diagrams and approach plates (in particular Jeppesens) to determine runway information for takeoff and landing data calculations, the aircrew must calculate runway slope since non DoD charts do not do this for you. To do this, you must extract the departure end elevation and approach end elevation from the airfield diagram and use the following formula:

$$\text{Slope in percent} = \frac{(\text{Departure end elevation} - \text{Approach end elevation})}{\text{Runway length}} \times 100$$

EXAMPLE: Elmendorf AFB, AK, Runway 23 $\frac{(175 - 210)}{10,000} \times 100 = -.35\%$ slope

2.3. Air Refueling Coordination. Crews should make every effort to contact tanker and receiver units to pre-coordinate training or evaluation requirements. When scheduled to air refuel with a Travis AFB tanker or receiver and prior coordination is unsuccessful, attempt contact on AMC Common frequency - UHF 319.4 (Preset channel 10) during preflight activity.

2.4. Confirming Mission Fuel Loads. Aircraft commanders (or flight planner-349 AMW) will verify the scheduled fuel load on all missions and locals (not planned as same-day-mission-planning) on the day prior to flight. Changes to fuel loads will be coordinated NLT 1600L the day prior to flight. Aircraft commanders should limit changes to the Final Fuel Load (on the day of flight) to unexpected contingencies such as mission changes, destination alternate requirements, or stronger than planned headwinds, etc. See paragraph 13.1.3.

2.4.1. Additional Guidance for Off-Station Missions Originating from Travis AFB. Aircraft commanders (or flight planner-349 AMW) should attempt to contact ATOC and the Passenger Terminal the day prior to flight to confirm the cargo payload and passenger count to determine fuel requirements. On the day of flight, aircraft commanders will receive a face-to-face briefing from the cargo boom operator(s) when dropping the flight engineer at the aircraft. This briefing should consist of hazardous materials, actual payload, and number of passengers. If necessary, aircraft commanders will make the Fuel Change Notification after receiving a weather briefing.

2.5. Planning Fuel Reserves.

2.5.1. Local sorties NOT requiring an alternate should plan on having 25K pounds of useable fuel at the IAF (Block 14; Req'd O/H Dest). Useable fuel does not include any identified trapped body

tank fuel that is unable to be transferred to the main tanks. It also does not include any ballast fuel required to prevent exceeding CG limits (WARP modified aircraft). The flight engineer will document the 10K additional overhead fuel requirement in Block 4, AMC Form 66. A time is NOT required in this block if an alternate isn't required.

2.5.2. For local sorties requiring an alternate, insert the required alternate fuel and time in Block 4. If the required alternate fuel happens to be less than 10K pounds, still plug 10K in Block 4 to standardize the IAF fuel figure of 25K pounds of useable fuel. If the alternate fuel requirements are greater than 10K pounds, plug the larger values into Blocks 4 and 14. This will simplify fuel planning for local sorties and standardize fuel planning used by Mission Development and flight crews.

2.6. AMC Form 66, Mission Data: AMC Form 66 is designed to combine mission information on a single worksheet for mission planning, preflight, inflight, and post-flight activity. Time/Fuel Analysis portion of AMC Form 66 meets the fuel planning requirements of AFI 11-206. Prior to engine start, aircraft commanders will coordinate destination alternate requirements with the flight engineer, review and initial block 34 on the AMC Form 66.

2.7. Alternate Airfields: The following is a list of airfields that may be used as alternates for planning purposes. The list is based on the following planning factors:

NOTES:

Departing MAP

Heading is magnetic from Travis AFB

DIST= ground distance

Includes CLIMB, CRUISE, DESCENT, plus 15 minutes holding at max endurance at sea level

Final landing = 12,000 lbs.

50 knot headwind

GW=300,000 pounds

Any performance degradation (i.e., WARP, etc.) must be accounted for by the crew.

DO NOT USE alternate divert fuel for normal cruise unless **all** planning factors are met.

<u>AIRFIELDS</u>	<u>HDG/DIST</u>	<u>ALT/KIAS</u>	<u>APPROX. TIME/FUEL</u>	<u>REQ AT IAF</u>
McClellan AFB	045/35	120/250	:15/6.9	21.9
Beale AFB	024/57	120/250	:19/8.1	23.1
Vandenberg AFB	163/222	390/256	:38/13.1	28.1
Edwards AFB	135/280	390/256	:48/15.2	30.2
Palmdale (AF Plant 42)	100/287	390/256	:48/15.2	30.2
Fallon NAS	031/293	390/256	:48/15.2	30.2
March AFB	138/347	390/256	:55/16.6	31.6
Nellis AFB	108/351	390/256	:57/17.3	32.3

<u>AIRFIELDS</u>	<u>HDG/DIST</u>	<u>ALT/KIAS</u>	<u>APPROX. TIME/FUEL</u>	<u>REQ AT IAF</u>
Hill AFB	066/490	390/256	1:16/21.6	36.6
McChord AFB	358/533	390/256	1:23/23.1	38.1
Fairchild AFB	017/591	390/256	1:32/25.2	40.2

2.7.1. The above fuel computations do not alleviate aircrew responsibility for checking indirect routings, weather, NOTAMS, stronger than normal winds, WARP drag index, and cruising at hemispheric altitudes, when planning an alternate airfield fuel requirement.

2.8. Opportune Air Refueling/Cargo Missions. Aircrews will call back to 60 OSS/AO (4-0961, 7156) before requesting opportune missions from TACC that will extend the TDY beyond the scheduled return time (SRT) to de-conflict scheduling of the crew/aircraft.

2.9. Use of Terrain Charts. Pilots will use terrain charts on operational missions and off-station trainers for all unfamiliar airfields. A properly CHUM'd terrain chart will be used for all departures which require a terrain chart review or an engine-out escape route. The type of chart to be used depends on what is available for that part of the world. Any chart showing prominent details is acceptable, such as TPCs, sectionals, and JOGs. GNCs and JNCs are not acceptable.

3. Transition Training:

3.1. Familiar Airfields. The following airfields are available for transition training. Aircraft commanders will review NOTAMS, IFR Supplement, AP/1 and the Airfield Suitability Report and Restrictions (ASRR) for the transition field and coordinate with the destination airfield. Aircraft commanders will consider training requirements, weather, and sortie duration in selecting a training field. If departing Travis due to pattern saturation, advise TCP of intentions.

3.1.1. Travis AFB. Runways at Travis AFB are not grooved or porous. Therefore, the standard RCR is 10 for takeoff and 8 for landing when the runway is wet. These RCR values apply at all locations where the condition of the runway surface is unknown.

3.1.2. Beale AFB. Available for use between 0600L and 2300L. Transition training is permitted on a case-by-case basis. The PAR is not normally available on weekends and after 2200L during the week. Do not overfly the Pave Paws radar site east of the field. Coordinate with Beale Command Post (DSN 368-5700) to avoid conflict with priority traffic.

3.1.3. *McChord AFB. Available for use between*

3.1.4. Sacramento International Airport. Available between 0700L and 2200L weekdays. Do not overfly housing area adjacent to the river south of the I-5 bridge. Departing runway 16 continue straight ahead until reaching the I-5 freeway prior to turning unless directed otherwise by ATC. Do not overfly mobile home park located 1.7 miles north of the airfield and 1/2 mile east of the extended runway center line. Do not overfly the tower and passenger terminal areas. Fly ILS approaches as much as possible. If non-precision approaches are flown, plan your arrival at MDA to avoid prolonged low altitude flight at high power settings. VFR patterns are authorized as long as all overflight restrictions are observed. NOAA Southwest Volume 2 approach booklet contains all available approaches. Contact SAC International (916) 929-5411 or TRACON manager (DSN 633-4242).

3.1.5. Stockton Airport. Pre-coordinate transition training with Stockton Airfield Manager, (209) 468-4700. Unannounced arrivals will be directed elsewhere. Plan for only 1 to 1 1/2 hours of transition training at Stockton. Only one KC-10 or C-5 is allowed in the Stockton radar pattern at a time. Expedite climb for noise abatement. Remain at or above 1500 feet MSL within 15 NM of Sharpe AAF (4 1/2 miles south of the airport). Do not overfly San Joaquin General Hospital (1 1/2 miles northwest of the airport) or the city of Manteca (2 miles south of the airport). Transition is authorized only on Runway 29R.

3.1.6. Edwards AFB, CA (DSN 527-2222/3571)

3.1.7. Vandenberg AFB, CA (DSN 276-4129)

3.1.8. Lemoore NAS, CA (Contact Lemoore Approach Control)(DSN 949-1099)

3.1.9. Fallon NAS, NV (Contact Fallon Approach Control) (DSN 890-2413)

3.1.10. Palmdale During duty hours: C(805) 272-6708

Non duty hours: C(805) 272-6600

3.2. Transition Training At Other Than Above Locations: 60 OG/CC (349 OG/CC for AFRC) or designated representative must approve transition training at airfields other than those listed in paragraphs [3.1.1](#) through [3.1.10](#).

3.3. Unauthorized Transition Airfields. Transition training is not authorized within the San Francisco Class B Airspace, including:

Metropolitan Oakland International

Moffett Field

San Francisco International

4. Local Pattern Procedures:

4.1. Aircrew Considerations Following an Emergency. The following techniques are provided for your consideration in establishing your plan of action following any emergency for which you must ground egress: Establish an escape route. Maintain positive control of surviving aircrew/passengers. 60 OG/OGV suggests clearing the aircraft a minimum of 500 feet. Establish a priority for treating the injured. Perform a head count. Report the location of fire or emergency, state of evacuation (possible survivors on board), hazardous material carried and location, to the Fire Chief as soon as practical. Know your procedures for evacuation and plan ahead.

4.2. Aircraft Taxi/Observer Procedures. Aircraft commanders requesting the assistance of a crewmember to monitor the taxi from a forward (1 L/R) or mid-cabin (2 L/R) door should not commence taxiing until communications are established and cleared to taxi by the observer. Open the door only as much as required to adequately and safely monitor taxi. Taxi observer will not stand or kneel directly in front of door opening.

4.3. *Reflective Gear for Aircrews During Hours of Darkness. All crewmembers will wear a reflective belt from dusk to dawn on poorly lit flightlines. A lit flashlight may be used only in the case of a lost or missing belt.*

4.4. Engine Start Procedures For Parking Spots 516/517/518. Aircraft parked in spot 516 must be towed prior to engine start as there is loose asphalt which would create a hazard during taxi. Taxiing out of spot 518 would blow sand into the pumphouse. Therefore, a tow is also required out of this spot. Crews may not start the #2 engine in spot 517 since the blast fence is not high enough to be effective against jet blast into the adjacent ramp. Heavy aircraft requiring all three engines to taxi will be towed out of spot 517 prior to engine start.

4.5. Use of UHF Radios. UHF radio frequencies should be used to the maximum extent possible when operating at military installations. This does not preclude the use of VHF radios when specifically assigned one by ATC, nor does it preclude VHF radio use for safety reasons, training, etc.

4.6. Controlled Takeoff Times. Aircrews will coordinate with Travis Command Post for controlled takeoff times. If a mission appears to be falling behind in the pre-launch sequence of events, Travis Command Post will coordinate the takeoff priority with ground and tower control, and advise the aircrew.

4.7. Monitoring Command Post Radios in the Local Pattern. To aid in reducing cockpit task saturation by reducing the radio background noise, the following procedures will be followed by all aircraft flying local training missions:

4.7.1. Crews will monitor Command Post's VHF frequency (141.9) inflight (normally a crewmember other than the pilots in primary crew positions). This frequency will be used only for Command Post to initiate a call to a particular crew. For example, if Command Post needs to contact a crew in flight, they will do so on VHF (141.9). The crew will answer on 349.4, keeping VHF clear.

4.7.2. Any calls initiated by the crew, such as block times, MX status, checking on tanker/receiver status, etc., will be made on UHF.

4.8. Traffic Advisory Procedures for Travis TACAN A and B Approaches: All aircrews flying the Travis TACAN A or B approaches (or otherwise operating in the vicinity of Rio Vista Airport) will make every effort to self-announce their aircraft position and/or intentions on the UNICOM frequency. Example: (called in-the-blind on 122.8 approaching lead radial to final approach course on TACAN-A) "Rio Vista traffic, Quest 52, heavy KC-10, 2 miles south of Rio Vista airport, 3000 feet, descending to 1800 feet, turning west to Travis AFB, for Rio Vista traffic." Try to use generic VFR terminology to relay your position relative to Rio Vista Airport. Using an additional crewmember to make these radio calls will minimize distraction from normal duties.

4.9. Seat Changes in the VFR/Radar Pattern: For clearing purposes, seat changes for primary crew members should not be initiated until aircraft is established on downwind, wings level, and at pattern altitude.

4.10. Mid-Air Collision Potential. The heavy congestion of Travis traffic pattern requires extreme vigilance from every crewmember. However, this is not just unique to Travis and crews should always employ good clearing techniques and maintain proper situational awareness. High volume VFR traffic to and from airports in the area and along I-80 requires dedicated clearing. Sailplane flights along the Vaca Hills up to 6000 feet MSL are common. Activity increases on weekends.

4.11. Radio Terminology. With many aircraft in the local pattern the radios tend to become very "busy." Part of maintaining situational awareness is radio discipline. Keep radio transmissions clear and concise. Understand what clearance the controller has given you --if you don't understand, *ask*.

Two phrases used frequently by Travis Approach Control have very different meanings, the phrases are "*To Follow*" and "*Traffic Is*". This terminology is used to convey your position in traffic sequencing and whether or not the traffic is to the same runway or a different runway. You will always be turning *behind* the traffic, regardless of runway, *unless* specifically cleared otherwise (e.g. terminology such as "traffic is-turn inside of that traffic" may be used). The following information is provided:

4.11.1. "TO FOLLOW" - Informs a pilot to follow an aircraft that's making an approach to the *same* runway. E.g., "Sierra 42, number 2 *to follow* a heavy C-5, 4 mile final, runway 21L. Report base behind that traffic." Your instructions are that you are number two behind a C-5 to the same runway, 21L.

4.11.2. "TRAFFIC IS" - Informs a pilot to follow an aircraft that's making an approach to a *different* runway. E.g., "Orca 33, you're number one, 21L, *traffic is* a heavy C-C-5 5 mile final 21R. Report base 21L behind that traffic." You are the first airplane to 21L but will turn behind the C-5 going to 21R.

4.12. Local Mission Cancellation/Termination. The Travis Command Post (TCP), in coordination with appropriate training and maintenance functions, retains the authority to cancel local training flights due to weather, maintenance, etc. Coordinate early termination through TCP. Sorties may be terminated prior to scheduled duration if training is complete. Aircraft Commanders will obtain approval from TCP if they wish to continue flying beyond the scheduled landing time.

5. Crew Communications Procedures:

5.1. COMSEC Pickup:

5.1.1. Locals. 60 OSS Crew Comm will provide a KYK-13 loaded with Mode 4 and secure voice for all locals. Scheduled formation sorties and refueling missions with 60 AMW-assigned aircraft will have a KYK-13 loaded with Mode 4, Have Quick, and Secure Voice for each aircraft. No prior coordination is necessary for scheduled locals (sortie is printed on weekly schedule) unless special requirements are necessary.

5.1.2. With the exception of AKAT-3662 (mode 4 key tape), AMC crews will not normally carry classified documents on AMC missions. This applies to: AKAL-L506 (Worldwide Authenticator), AKAC-176 (Encode/Decode Document), and AKAA-283 (Mode 3 Time Codes). Classified missions, which require classified documents as specified in the Air Tasking Order, Spins, etc., will carry the required documents and equipment. Kits will be issued by Crew Comm with complete source documents. As long as the source document remains sealed it can be turned back in upon mission completion. If a page or key tape is *removed* from the book or canister, that page/tape and all the pages/tapes already outdated must be destroyed within 12 hours of use. For example, if you need to use the codes for 15 July, all pages from 1 July through 14 July must be destroyed within 12 hours of the seal being broken on that book. Additionally, you must destroy all tapes in a canister (and all other outdated materials in your possession) once the month is over. For information on storage and disposition of COMSEC materials refer to the Aircrew Guide to COMSEC Material issued with every kit.

5.1.3. Off Station Missions:

5.1.3.1. Four different COMSEC kits are available at Base Operations to meet the needs of most missions (refer to [Table 1.](#)). Aircraft commanders (or flight planner-349 AMW) will fax their request for a specific kit to Crew Comm (4-0141) or order in person NLT 24 hours prior

to departure (preferably prior to 1400L the day before) and NLT 1200L on the Friday prior to a weekend or Monday morning mission. Specify that it is a KC-10 mission since requirements are different for airlifters (N/A kit #1). Any special COMSEC requirements need to be coordinated with Crew Comm (i.e., document/equipment not listed below). Ensure only one order is made per crew.

5.1.3.2. The kits will be configured as follows:

W=Worldwide

N=NATO

P=Pacific

*=Issued by request only

Table 1. Crew Communications Kits

PACIFIC KITS			EUROPEAN KITS		
KIT #	USE	DOCUMENT	KIT #	USE	DOCUMENT
1	Mode 4 Only	AKAT-3662	1	Mode 4 Only	AKAT-3662
2	Mode 4	AKAT-3662	2	Mode 4	AKAT-3662
	Authentication-W	AKAL-L506		Authentication-W	AKAL-L506
	Authentication-P	AKAC-1553		Authentication-N	AMSL-1800
3	Mode 4	AKAT-3662	3	Mode 4	AKAT-3662
	Authentication-W	AKAL-L506		Authentication-W	AKAL-L506
	Authentication-P	AKAC-1553		Authentication-N	AMSL-1800
	Authentication-Mode 3	Akaa-283		Authentication-Mode 3	Akaa-283
WORDWIDE KITS					
	Mode 4	AKAT-3662		Authentication-N	AMSL-1800
	Authentication-W	AKAL-L506	*	ACC Callsign Book	AFKAI-2
	Authentication-P	AKAL-L506	*	Joint Operations Code	AKAC-176
	Authentication-Mode 3	Akaa-283	*	Have Quick	KAL-9200
			*	Secure Voice	AKAC-1024

5.1.4. When carried, the AKAC 1553, PACAF Authenticators, are to be used in the Pacific for contact with non-AMC command posts. Use the AKAL L506 for every other command post or controlling agency in the world. If you are in doubt as to which document to use, ask the agency which one they are using, or just prior to authenticating, announce the one you are using. This should preclude any problems.

5.1.5. Crewmembers picking up COMSEC from Base Ops will have their ID card and flight orders available at pickup to help expedite clearance verification. For complete information on storage and disposition of COMSEC materials refer to the Aircrew Guide to COMSEC Material issued with every kit.

5.2. Mode 4 Procedures. IAW Volume 6 of this instruction, all flights departing the CONUS will conduct an inflight check of Mode 4 operation with NORAD on UHF (364.2). Request an interrogation test through the appropriate Sector Operations Control Centers (SOCCs) as follows:

<u>CONUS SECTOR</u>	<u>LOCATION</u>	<u>CALL SIGN</u>
Northeast	Griffiss Airport	Huntress
Southeast	Tyndall AFB	Oak Grove
Southwest	March ARB	Sierra Pete
Northwest	McChord AFB	Big foot (Travis Primary)

NOTE: Remote receiving stations are in place for UHF coverage along entire sectors.

6. Formation Guidelines:

6.1. General. Formation procedures will be IAW Volume 25 of this Instruction, MCI 10-202, TO 1-1C-1-32, and TO 1-1C-1-33.

6.2. Flight planning:

6.2.1. Aircraft departing in formation should file a north SID to expedite join-up and avoid air traffic congestion to the south of Travis AFB. Formations with activity scheduled to the south should file to the Williams (ILA) VORTAC and then to Hangtown (HNW) VOR, followed by a turn south on flight plan routing. After departure, once the formation is established, the leader may request clearance off the SID and direct to the next position for timing purposes. Mission Development will not plan formation breakups at ILA as ATC clearance is difficult and training is minimized.

6.2.2. When planning a formation departure using a SID transition point, followed by direct to another point that is also a SID transition point (e.g. TEALL1.ILA FMG), ARTCC computers may override your request and issue you the SID that takes you to the second point (e.g. TEALL1.FMG). If this is unacceptable (due to timing constraints, training, etc.) request that Clearance Delivery amend the clearance.

6.3. Specialized Formation Briefing. The formation leader will be annotated on the flying schedule and must conduct a specialized formation briefing with all flight members. Briefings should be accomplished the same day as the flight and may use the Travis "Formation Briefing Guide." When the formation brief is accomplished at other times, lead will brief all items that have changed prior to the flight. Lead will coordinate special training requirements, evaluation requirements, etc. from all flight members, as well as scheduled tankers and receivers, prior to conducting the formation briefing. Emphasis should be placed on flying the mission as briefed.

6.4. Sympathetic Delays and Alternate Missions. Lead will thoroughly brief a contingency plan should any aircraft in the formation be unable to make the scheduled takeoff time. This also applies to briefing alternate missions in the event the scheduled activity changes (i.e. receiver or tanker cancels). Aircraft commanders should give copies of their flight plans to all other aircraft commanders, allowing all crews to fly any mission if cancellations dictate. Aircraft commanders not qualified to be lead aircraft will notify the lead aircraft commander during mission planning.

6.5. Communications. All aircrews should accomplish HAVE QUICK (P260) and Secure Voice (P270) training on scheduled local training missions.

6.5.1. Unauthorized UHF frequencies will not be used to conduct HAVE QUICK and/or Secure Voice training (e.g. 300.0 or 300.025) IAW the Federal Communication Commission (FCC). Travis has the frequencies 311.0 and 321.0 available for this training. Request to authorize other frequencies will be submitted through the proper channels.

6.5.2. Radio Utilization. The VHF/UHF/HF radio plan will be thoroughly briefed and annotated on the formation briefing guide. Any subsequent changes to this plan must be briefed and understood by all members of the formation. The approved VHF interplane frequencies for Travis KC-10s are:

Primary - 138.875

Secondary - 139.925

6.6. Takeoff Departure and level off:

6.6.1. Differential Airspeed on Departure. The formation leader will assign specific closure airspeeds for each aircraft in the formation.

6.6.2. Final Level Off. If only performing a formation departure, lead will not request formation breakup until all aircraft are in the assigned altitude block with proper altitude separation between aircraft.

6.7. Formation Descent and Arrival. If formation descent and arrival to the Travis radar or VFR pattern is desired, detailed descent profile, airspeed reduction, and configuration procedures will be thoroughly briefed.

6.7.1. The descent checklist should be accomplished earlier than normal to allow all crewmembers to focus their attention on clearing and proper spacing during descent.

6.7.2. Formation recoveries require careful planning and a thorough briefing by lead. Factors to consider include high terrain in the area, transition altitude, point at which formation break-up will occur, local traffic pattern procedures, and weather conditions.

6.8. Formation Debriefing. All crewmembers should attend the formation debrief, if this is not possible/practical, at least one pilot per aircraft should attend. Review all aspects of the mission to include EMCON procedures.

7. Non-Engine Running Crew Change (NERCC) Missions:

7.1. General. NERCCs are missions where crews are changed in minimum time between landing and subsequent takeoff. Plan a 1-hour ground time for taxi in, crew change, and taxi out. Hold maintenance involvement to an absolute minimum (i.e., check aircraft, assist crews in changeover, etc.). Missions involving aircrew qualification training (CCTS) and AFI 11-408 evaluations should not be routinely scheduled for the second half of a NERCC mission. NERCC missions will be annotated on the weekly flying schedule.

7.2. Inbound Crew. Prior to landing, the inbound crew will advise Travis Command Post of their maintenance status, fuel status, gross weight, landing CG, and expected block time for coordination with the outbound crew. Leave the Flight Information Publications (FLIP) bag on the aircraft.

7.2.1. The inbound boom operator will complete a Load Management Computer (LMC) strip tape or a DD Form 365-4 with actual fuel readings and the total number of outbound crewmembers

verified through the Travis Command Post. Give both copies to the outbound boom operator. Complete AF Form 791, if required, and turn in with the mission paperwork. The inbound boom operator will inform the outbound boom operator of the time since the boom hydraulic system was pressurized.

7.2.2. After starting the APU and parking the aircraft, the inbound crew will complete the "Parking-Engine Shutdown" checklist, compute INS error rates, and align the INSs (manual position update procedures may be used.) Do not accomplish the "Leaving Aircraft" checklist.

7.2.3. The inbound aircraft commander should close out the aircraft maintenance forms and brief the outbound aircraft commander on aircraft status. Maintenance personnel will complete an exceptional release, if required.

7.2.4. The inbound crew will not take the aircraft maintenance forms but will go to maintenance debrief to brief the status of the aircraft and receive a MMCS number on the AFTO Form 781. If the outbound crew is not at the aircraft when the inbound crew is ready to depart, **the inbound aircraft commander or designee will remain at the aircraft until the outbound crew arrives.**

7.3. Outbound Crew. Check aircraft status and fuel load with TCP, obtain parking spot, and expected block time. Additionally, the outbound Aircraft Commander (AC) will request the crew bus to wait for the inbound crew at the aircraft, if appropriate.

7.3.1. The outbound crew will meet the aircraft and receive a maintenance status update from the inbound crew. The outbound flight engineer will perform an exterior inspection and check the CAC. The entire outbound aircrew will perform interior inspection scans to verify proper switch positions. The "Cockpit Preparation" checklist and subsequent normal checklists will be accomplished. The outbound aircrew is responsible for CG and TOLD calculations. Consider brake temperatures when verifying takeoff data. The outbound aircraft commander will sign the DD Form 365-4 and give to maintenance.

8. Aircrew Arming/Security:

8.1. When mission itineraries require that aircrews be armed, squadrons will be notified via MIS by Mission Development. To allow aircrew preflights to start earlier in the launch sequence, 60 OG and Security Police armory personnel have instituted the following aircrew arming procedures:

8.1.1. As soon as a mission is released for alert by the Travis Command Post, the alerting individual will call the armory, advise them a crew arming requirement exists, and provide the number of weapons required and approximate arrival time of the crew member. The attendant will fill out the AF Form 1297 and load the required weapons and ammunition into a gun box.

8.1.2. A crewmember will go to the armory and present his/her AF Form 522A and ID card. When 16 or more weapons are to be picked up, the crewmember needs to be armed. Berettas (9MM), are classified as low risk weapons. The weapons and ammunition will be transported to the aircraft in the gun box.

Aircrews have priority for weapons issue and may move to the front of the line. First come, first served will apply for weapons turn-in. These procedures may be used for any mission requiring arming.

8.1.3. Weapons transported in the gun boxes will be loaded (magazine inserted with a round in the chamber) with the safety lever on safe (9MM) and placed in the gun box by the Security Police. Crewmembers wearing holstered weapons will ensure the weapons are carried with the safety off.

8.1.4. If the aircrew is required to load a weapon, use a clearing barrel if available. If the aircrew is required to load and chamber a weapon at the aircraft, move a safe distance away from the aircraft (at least 50 feet) and ensure weapons are pointed away from personnel, vehicles, and the aircraft before loading and chambering a round.

8.1.5. Aircrews will arm prior to descent into a threat area or before beginning preflight or loading operations in a threat area. Weapons may be placed in a gunbox after takeoff from a threat area.

9. Unauthorized Equipment. Unauthorized equipment (Walkman-type radios/tape players, CD players, etc.) will not be connected to aircraft intercom or radio systems.

10. Inflight Fuel Jettisoning:

10.1. When fuel dumping is necessary, the recommended fuel dump area will be used except in cases of extreme emergency. If fuel jettison is required immediately after departure and the aircraft commander determines the emergency does not warrant jettisoning in the local traffic pattern, request a vector to W-513, west of the Sausalito VORTAC. Oakland ARTCC will issue clearance to enter this warning area. The coordinates for the center of this area are: **N3750.0 W12330.0**

10.2. This area will keep the aircraft in the immediate vicinity of Travis AFB and, if the situation deteriorates further, an eastbound turn will place the aircraft on final for San Francisco International Airport.

10.3. Procedures: Pilots will proceed to the selected fuel jettison area and determine if the airspace below is clear of traffic. When jettisoning fuel, aircrews must comply with Volume 5 of this instruction.

10.4. If circumstances prevent aircraft from utilizing the designated fuel dump area, every effort will be made (within safe operation) to dump off federal airways and away from urban areas, agricultural regions, or water supply sources.

10.5. Annotate amount of fuel jettisoned on an AF Form 791.

11. Aircraft Documentation and Forms Requirements:

11.1. Life Support Documentation. All items on the AFTO Form 46, Pre-positioned Life Support Equipment, have been installed and inventoried by life support personnel. Aircrews are not required to physically inventory those items. However, boom operators accomplishing the aircraft preflight/thru-flight will perform a cursory inspection to ensure sufficient quantities are available for the mission. The Aircraft Commander or designated representative, usually the boom operator, will sign and date the AFTO Form 46 prior to each flight. This acknowledges that the cursory inspection has been accomplished.

11.2. Maintenance Equipment Documentation. All items on the AMC Form 222, Aircraft Dash 21 Equipment Inventory, have been physically inventoried by maintenance. Aircrews are not required to

physically inventory those items. However, when accomplishing the aircraft preflight/thru-flight, a cursory inspection is required to ensure sufficient quantities are available for the mission.

11.3. Transportation Equipment Documentation. All items on the AMC Form 12 (Fleet Service Inventory) and 109 (Tiedown Device Inventory) have been inventoried and installed on the aircraft by the transportation squadron. Aircrews are not required to physically inventory those items. However, when accomplishing the aircraft preflight/thru-flight, a cursory inspection is required to ensure sufficient quantities are available for the mission.

11.4. AMC Form 97 Procedures. Volume 8 of this instruction provides specific criteria on when to complete an AMC Form 97, USAF Aircraft Mishap Report Worksheet. Additionally, 60 AMW and 349 AMW crews will adhere to the following guidelines:

Fax a copy with crew orders to 60 AMW/SE (DSN 837-1104) and 60 AMW/CP (DSN 837-5950) as soon as possible (ASAP).

349 AMW crews will also fax a copy to the 349 AMW/WCC (DSN 837-0824) and the 349 AMW safety office (837-1617).

Notify TACC and your squadron commander or operations officer ASAP.

11.4.1. If not able to fax at the location where the incident occurred, utilize the services available at the first opportunity. Be sure to contact 60 AMW/SE and 60 AMW/CP in all cases.

11.4.2. All reporting requirements, resulting from the incident, have shifted to the wing command post from higher headquarters level. The wing is now responsible for reports affecting Travis-assigned aircraft and aircrews even if flying another wing's aircraft. Therefore, any time a Travis crew is flying another wing's aircraft and a Form 97 is required, use the notification guidelines in Volume 8, paragraph 11.4., and fax a copy of the same information to the command post of the wing owning the aircraft.

11.4.3. Your compliance with the above procedures provides timely mishap reporting to commanders, enables the 60 AMW/CP and 60 AMW/SEF to accomplish necessary operational reporting, and initiates safety channel investigation and reporting to prevent mishap recurrence.

11.5. AFTO Form 781-Clearing Red X Symbols. 60 LG authorizes the flight engineer, to clear Red X symbolson their airplane at enroute stations when qualified maintenance personnel are not available to satisfy these requirements. The technician/crew chief accomplishing the work should sign the "Corrected By" block and the flight engineer should sign off the "Inspected By" block and initial the symbol. This authority is limited to those items listed in the exception to paragraph 3. of MCI 11-210, Volume 12. Clearance of any other Red X entry will require approval from the 60 LG/CC or designated alternate. Use call back procedures through Travis Command Post.

12. Fuel Conservation Program. The following guidelines supplement fuel conservation information found in Volume 6 of this instruction.

12.1. Mission Planning. Mission Development will plan and schedule fuel loads to the nearest 10,000 pound increment. They use 25.0 (IAF) and 12.0 (final landing) for fuel load planning. When using a Jeppeson Flight Plan or Advanced Computer Flight Plan for fuel planning, ensure fuel reserves meet MCI 11-210 requirements.

12.1.1. Plan missions at Long Range Cruise (LRC) and optimum altitudes to the maximum extent possible (remember, .825 is LRC only *at optimum altitude*). For air refueling activity scheduled shortly after departure, use the following guidelines to choose a final level off altitude:

Within 30 minutes of departure time--base altitude for the air refueling

30 - 60 minutes--high 20s, low 30s

over 60 minutes--optimum altitude

12.1.2. Plan direct routing whenever possible.

12.1.3. Determine fuel required to fly the mission with required fuel reserves. Compare scheduled fuel load with fuel required. If fuel remaining at the IAF is below minimums or exceeds minimum by 10.0K pounds or more (e.g., 35.0K or greater and no scheduled transition), coordinate a fuel load change through your squadron mission controller.

12.1.4. Review flight plan during mission debrief and compare the planned and actual fuel consumed. Document all fuel savings recommendations on the Aircraft Commander Feedback form.

12.2. Taxi. For ground delays over 30 minutes (maintenance, operations, or ATC delays), shut down as many engines as appropriate. If maintenance delay is extensive, request taxi back to parking, shut down, and consider alternate/back-up missions.

12.3. Climb and Cruise. Request unrestricted climb. Attempt to get higher altitude clearance prior to leveling at intermediate altitudes. The use of cruise power and/or speed/vert speed to final level off altitude is not a fuel- saving measure and should only be considered for small altitude changes or to comply with autopilot climb-rate restrictions.

12.4. Descent. Aircrews should normally use descent profiles prescribed by the "Descent and Landing" section of the flight manual.

12.5. Transition and Landing. If practical, delay aircraft configuration until just prior to turning final (not later than final approach fix). During VMC conditions, tighter radar patterns (short approaches) may be requested during multiple approaches (traffic permitting) to maximize training.

12.5.1. Fly the IFR downwind in 0/RET configuration (gross weight permitting). Opposite runway approaches or landings may be used if traffic and wind permit.

12.6. Fuel Reserves. Mission Development will review fuel consumed and shut down fuel to determine necessary changes in scheduled fuel loads for subsequent missions. If shutdown fuel is greater than 35,000 pounds, the flight engineer will annotate the appropriate reason on the AF Form 3578, Tanker Activity Report and the computer flight plan will be submitted with the post-mission paperwork.

13. Concurrent Servicing: The following information supplements concurrent servicing procedures found in Volume 6 of this instruction.

13.1. Coordination between the aircraft commander, cargo boom operator, flight engineer and the Concurrent Servicing Supervisor (CSS) is required. Boom operators must also coordinate with the crew chief to assure the tip-over condition has been considered and that the aircraft brakes have been released.

13.2. Cargo containing explosives, oxygen, or combustible gasses and liquids shall not be loaded/unloaded during concurrent servicing operations. Under combat conditions or simulated combat exercises, loading or unloading cargo containing explosives or munitions shall be accomplished according to T. O. 11A-1-33.

14. Cargo Boom Operator Procedures:

14.1. General Procedures. The primary and cargo boom operator duties are identified in T.O. 1C-10(K)A-1. If cargo is transported, identify a second fully qualified boom operator as the cargo boom. These individuals must work closely together as a team. The cargo boom will accomplish the cargo checklist, pre-mission coordination with the appropriate agencies, and assure the passenger information required for the DD Form 365-4 is provided to the primary boom. The cargo boom will be the primary crewmember responsible for passengers, will ensure observation of all passengers on board, and accomplish all required customs and agriculture procedures. The cargo boom will also brief the aircraft commander on any hazardous or special cargo on aircraft (IAW AFJMAN 24-204). During home station departures, the primary boom will proceed to the aircraft and begin the preflight. The cargo boom will go to Base Operations to pickup the cargo manifest and load plan. After reviewing the manifest, call ATOC and request a hazardous cargo briefing, then proceed to the aircraft.

14.2. Joint Airborne Air Transportability Training Missions (JA/ATT). Prior to departure, the cargo boom will receive a mission briefing from Air Operations. The cargo boom will ensure the aircraft is configured IAW the flying schedule and the Air Operations brief, to include required restraint equipment, pallet sub-floor, etc. The cargo boom must ensure the load plan, cargo manifest, the proper number of Shipper's Declaration for Dangerous Goods, and a DD Form 2133, Joint Airlift Inspection Record, are provided prior to loading.

14.3. Cargo Missions. The following regulation/instructions establish responsibility for load planning with their respective agencies: AFI 10-403, AFR 76-6, and AMCI 24-101, Volume 9. If these agencies do not have qualified load planners they will obtain expertise or assistance from their TALCE or unit current operations to ensure mission accomplishment is not jeopardized. If the airlift user fails to perform load planning and the cargo boom is directed to perform these duties, consideration will be made to ensure crewmember fatigue does not jeopardize the safety of the mission, and that sufficient time is given to ensure all mission requirements are completed with regard to the mission tasking.

14.4. Enhanced Boom Operator Procedures. This paragraph establishes a system to utilize qualified KC-10 Boom Operators to ensure on-time load completion during accelerated operations such as ORIs, CREs, contingencies, special missions or exercises. They are not for support of normal channel or routine missions.

14.4.1. When necessary, the 60 OG or 349 OG Commander will task the squadrons for boom operators to perform cargo loading operations (349th based upon availability of personnel). This tasking will be through an Air Operations scheduling MIS.

14.4.2. Squadron schedulers will schedule individuals, and mission controllers will manage enhanced boom operators. Duty Not to Include Flying (DNIF) booms may be scheduled for duties prescribed in this instruction, if the individual is current and medically fit for ground duty. Squadron operations officer or boom operator superintendent must concur. Coordination with the flight surgeon may be necessary to determine an individual's fitness for duty. Squadron operations staff will define a "normal duty work day" (i.e., 0700-1700). During this normal duty work day, person-

nel present for duty should be considered fit for duty as far as ground duty requirements are concerned. A minimum of 8 hours rest is desirable prior to conducting loading/off-loading operations.

14.4.3. Notification procedures. Travis ATOC will determine load time and notify Travis Command Post of the scheduled load time. Command Post will notify the applicable squadron Mission Controller, who will alert the enhanced boom operators. Boom operators will be alerted in time to allow them to be in place at the aircraft at the scheduled load start time

14.5. Customs procedures. The cargo boom will follow the procedures outlined in the AMC Aircrew Border Clearance Guide and Volume 13 of this instruction. When required, make sure all aircraft doors remain closed until a customs agent requests them to be opened. When delays are encountered, maintenance personnel may deplane to accomplish required after-landing maintenance actions. When returning to the United States, the aircraft commander or designated representative will make sure the crew completes their individual customs declaration prior to the outbound customs inspection.

14.6. Passenger enplaning and deplaning. Ensure all doors without stairs are closed and armed prior to passenger boarding. To ensure safety, air stairs will be utilized to the maximum extent possible for all passenger enplaning and deplaning. To alleviate "crowding" around the galley area and expedite passenger loading, consider boarding passengers through door 1R, when in a "B" configuration, and 2R/L, when in the "D" configuration. Once the passengers have been loaded in the aircraft, the air stairs should be released and the B1-1 stand repositioned at the door. Aircraft commanders are the final authority on whether to allow passengers to enplane or deplane if air stairs are not available.

14.7. Passenger movement. Passengers may observe air refueling when they are escorted by a crewmember to and from the ARO station. Primary crewmembers will be notified when passengers are in transit between the passenger compartment and the ARO station. Brief passengers on the use of the quick-donning oxygen system. The total number of individuals in the ARO compartment at any one time will not exceed the number of seats with seat belts and operable oxygen regulators.

14.8. *Seat Planning. For planning purposes, do not count the observer seat as an available seat. A complete Increased Accommodations Unit (IAU) consists of 75 seats available for crew chiefs, extra crewmembers, and passengers. When the IAU is not on board, 16 to 20 seats are available for seating.*

15. Travis Bird Aircraft Strike Hazard (BASH) Plan:

15.1. When Phase II is in effect (normally 1 October through 30 April), Air Operations will make every effort not to schedule departures or recoveries for missions from one hour before to one hour after sunrise or during any other designated BASH window.

15.1.1. Total number of missions scheduled that fall within an identified BASH window will be annotated and approved (for scheduling purposes) in the monthly Wing Operations Plan. Additionally, missions will be reviewed and approved on a daily basis at the Air Operations Directive meeting.

15.1.2. If mission requirements dictate a departure during this period, Air Operations will task Airfield Management to visually inspect the departure runway for birds 20 minutes prior to the scheduled takeoff time (see 60 AMW OPLAN 127-15 for more details). All AMC-controlled aircraft takeoffs during this period require 60 OG/CC approval.

15.1.3. Prior to transitioning at NON-DOD airfields, planner/aircrews will obtain any available bird activity information. Aircrews experiencing high bird activity at these locations will advise their respective safety office BASH representative.

15.1.4. At military or civilian airfields that do not have BASH programs, aircrews should use the BHC definitions in section 15.2. and the operational restrictions in section 15.3. as a guide when assessing the risk of bird hazards to flight operations.

15.2. Bird Hazard Conditions defined.

15.2.1. SEVERE - High bird populations (more than 15 large birds or 30 small birds) on or immediately above the active runway or other specific location (taxiways, in-field areas, and departure or arrival routes) that represents a high potential for strike. Keep in mind a single bird in a critical location may elevate the BHC to Severe.

15.2.2. MODERATE - Increased bird population (approximately 5 to 15 large birds (waterfowl, raptors, gulls, etc.) or 15 to 30 small birds (terns, swallows, blackbirds, etc.) in locations that represent an increased potential strike.

15.2.3. LOW - Sparse bird activity within 15 NM of the airport (less than the bird activity defined as moderate).

15.3. Aircrew Procedures:

15.3.1. Any time the Travis BHC is SEVERE, all AMC flight operations (takeoffs, landings and approaches) are prohibited. Airborne aircraft will divert or hold. Deviations require 60 OG/CC (or higher) approval.

15.3.1.1. For AMC-tasked missions, approval authority at NON-AMC locations lies solely with the AMC/DO.

15.3.1.2. Aircrews requesting waivers while at NON-AMC locations will coordinate with the AMC/DO through the TACC. Recommended guidance during SEVERE BHC is to delay departures and arrivals until birdwatch condition is MODERATE or less.

15.3.1.3. In all cases, operational mission priority must be weighed in determining waiver approval. When a waiver is approved for operation during SEVERE BHC at AMC locations, the local OG/CC (or higher) must actively monitor launch and recovery of aircraft.

15.3.1.4. When the Travis Bird Hazard Condition is MODERATE or SEVERE, all aircraft will be issued the appropriate BHC by Base Operations, ATC and Command Post. If the condition persists, it may also be broadcast on ATIS.

15.3.2. For the period from one hour prior to one hour after sunrise (BASH window), or other designated time periods during Phase II, or anytime a MODERATE bird hazard condition has been declared:

15.3.2.1. Initial takeoffs and final landings allowed only when departure and arrival routes avoid identified bird activity.

15.3.2.2. All local IFR/VFR traffic pattern activity will cease (airborne aircraft/crews will terminate transition training in the Travis local pattern).

15.3.2.3. All AMC-controlled aircraft takeoffs require approval by 60 OG/CC after Airfield Management has visually surveyed the runways/airfield environment for significant bird

activity. ATC and Command Post, in coordination with Airfield Management, will advise aircraft of the anticipated delay, if known, for bird dispersal or a return to LOW BHC.

15.3.2.4. Airborne aircraft will divert, hold, or full stop. Aircraft commanders should assess the risk by considering fuel status, weather, bird location, etc., when making this decision.

15.3.2.5. For aircrews on AMC-tasked missions, transition (practice patterns, approaches and landings) at NON-DOD airfields will not be accomplished during the BASH window. In addition, missions should be scheduled to avoid other known peak bird activity periods for particular airfields.

16. Functional Check Flights. 60 OG/OGV is the OPR for all Functional Check Flights (FCF). FCFs will be flown by FCF-trained crewmembers certified by the 60 OG/CC. AR-634, located within W-283 and W-285, is the Travis AFB-designated FCF airspace.

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